

UTAH DEPARTMENT OF TRANSPORTATION

TRAFFIC OPERATIONS CENTER

MONTHLY REPORT **APRIL 2004**

2060 South 2760 West, Salt Lake City, UT 84104
 Phone: 887-3700 Fax: 887-3797 commuterlink.utah.gov



Field Devices Summary

Freeway Closed Circuit Television (CCTV)	171
Surface Street CCTV	32
Dial-up CCTV	35
Total CCTV	238
Freeway VMS	42
Surface Street VMS	17
Portable VMS	2
Total VMS	61
HAR (6 deployed, 5 portable units)	11
TMS	243
RWIS	41
Connected Traffic Signals	623
Connected Ramp Meters	23



Traffic Operations Center Control Room

Operations Summary

VMS Messages Displayed	474
Signal Timing Calls	48
Signal Maintenance Calls	273
New Work Orders	392
Incident Responses	608
Website Visitor Sessions	100,179
511 Calls	20,312
Email Alerts Sent	295
Weather Desk Calls	218
CommuterLink Questions	17

KUDOS!

I am writing in regards to employees, Mr. Marvin Fuell and Brent Brainich. I recently reported a concern about the traffic signal lights at the corner of 11000 S. and 700 E. They were professional, friendly, helpful, and cooperative, and invited me to keep in touch with them if I had further concerns. Mr. Fuell also explained what he had done, and offered to follow up with some educational materials...I just wanted to thank both Brent and Marvin for their prompt courteous, and helpful response to my concern, and bring their professional and compassionate attitudes to your attention. It was a pleasure talking with both of them, and I was very pleasantly surprised.

Kelly Roemer

TOC Employee of the Month



Joseph Nesi, Electronics Specialist

TOC Mission

1. To Support UDOT and the Department of Public Safety in Improving Highway Safety.
2. To Help Provide Reliable and Efficient Travel.
3. To Provide Useful and Timely Real-time Traffic Information.
4. To Work Together with Other Government Agencies to Serve the Public.
5. To Provide Excellent Customer Service.

ACTIVITY HIGHLIGHTS

TOC Activities

This Month

1. The Attorney General's Office released a new training video for the AMBER Alert. Attorney General Mark Shurtleff announced the new video at the Utah Crime Victims Conference at the South Towne Expo Center on April 22nd. The Utah Attorney General's Office in conjunction with KSTU Fox 13 produced the video. This video shows the proper procedures, and the necessary steps and criteria required to issue an AMBER Alert. The new training video is to be distributed to every law enforcement agency in the state, and also to the Bureau of Criminal Identification. The video is dedicated to Denny Simmons and his work and focus on the AMBER Alert System. For more information about the AMBER Alert visit <http://attorneygeneral.utah.gov/AL/amberalert.htm>.
2. A groundbreaking ceremony was held on April 13th for the I-15 widening project. Governor Olene Walker, Mayor Nancy Workman, along with local legislators attended this ceremony. This project runs from 10600 South to the Point of the Mountain on I-15. The project will add 11 cameras to the ATMS. Having these cameras will provide video feeds to the TOC from areas of I-15 that have not been able to be monitored until now.
3. Sr. Software Engineer Kyle Hortin attended a conference in San Antonio, Texas. Those in attendance discussed the standards which are used, or which are to be used, on the Computer Aided Dispatch (CAD). Kyle has spent many hours working on the new CAD system that will integrate the CAD in Dispatch with the Incident Management program in the Control Room. A conference to discuss center-to-center messaging standards for traffic incident management will be held in June in Salt Lake. One day of this conference will be held at the TOC.
4. UDOT's marketing firm, Penna Power Brian Haynes (PPBH), held a photo-shoot at the TOC. PPBH was instrumental in the marketing and public relations for UDOT during the 2002 Winter Olympics. They updated pictures taken when the TOC first opened in 1999. Several areas of the TOC were photographed including DPS dispatch and the control room. These recent photos portray the technology and capabilities of TOC.
5. Control Room Manager Brian Chamberlain traveled to San Francisco during the month of April. Mr. Chamberlain has been instrumental in the implementation of Utah's 511 system. In San Francisco Mr. Chamberlain gave a general overview of the 511 system and its capabilities at the Association for Commuter Transportation Conference.
6. The TOC Control Room Staff welcomes Karen Wilding as the new Evening Control Room Supervisor. Karen has worked as an operator at the TOC for nearly two years, and has also worked as a dispatcher in Davis County. Her experience as a dispatcher and as an operator will be invaluable to the Control Room Staff as the ATMS expands.



Control Room Weather Desk Console

ATMS Improvement and Expansion Activities

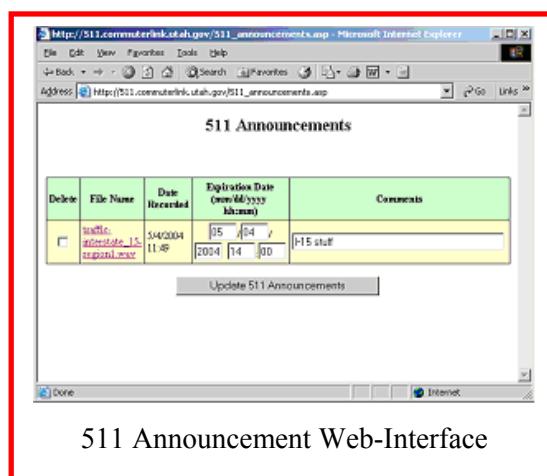
The following is a list of many of the projects that have either been completed, or are currently underway:

Region 1:

- Communications equipment arrived for the Legacy Parkway Project. This equipment is needed to connect the 13 CCTV, 3 VMS, 8 Traffic Signals, and several TMS sites. Equipment will be installed once configuration is completed at the TOC. Crews are planning to begin equipment installation in May.

Region 2:

- The 511 system code is now being hosted at the TOC. Previously Tellme, located in California, has hosted the 511 system's code as well as the answering service since it went online. With the TOC now hosting the code, there have been enhancements added to the system. Operators may now implement route specific announcements, which allows callers to more quickly obtain desired information. Having both global and route specific announcements make 511 more dynamic, and can be customized to benefit callers. 511 retains the ability to play global announcements for events such as the AMBER Alert. The ability to provide the route specific announcements will help to provide more local information to travelers. With this new build comes a web interface to manage the audio files. The announcements may be played, comments or expiration dates may be added, or the messages may be deleted.
- Several traffic signals along key corridors have been connected to the TOC via fiber optic cable. The connection of fiber to these signals assures a secure and reliable connection to these traffic signals. This communication is crucial especially when incidents require the signal timing to be changed.
- A Request for Proposal (RFP) has been completed for an adaptive traffic signal control project. The awarded contractor is to implement an adaptive signal control system on Foothill Boulevard that is integrated with the current ATMS.



511 Announcement Web-Interface

Region 3:

- A video decoder and monitor have been installed in the Region 3 Headquarters Building. This monitor currently provides the same feeds as the media interface, but will soon provide video feeds from all cameras on the CommuterLink system.

Region 4:

- A concept report to integrate the traffic signals in Richfield is currently being written. This concept plan calls for the current closed loop traffic signal system to be changed to support the IP over Ethernet communications protocol. This will enable traffic signal timing personnel to adjust the traffic signals along the SR-120 (Main Street) from an *i2TMS*TM terminal.
- Equipment has been ordered for the St. George Traffic Signal Interconnect Project. This project integrates both St. George City and UDOT traffic signals using wireless transmitters and hardwired lines.

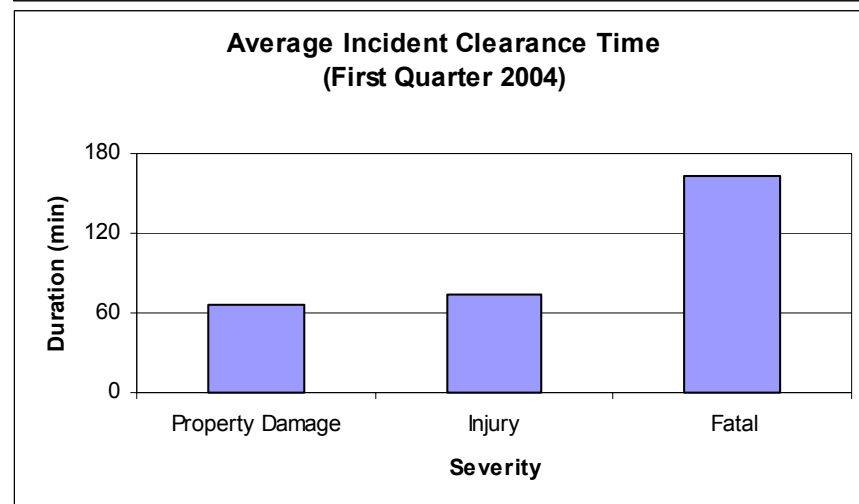
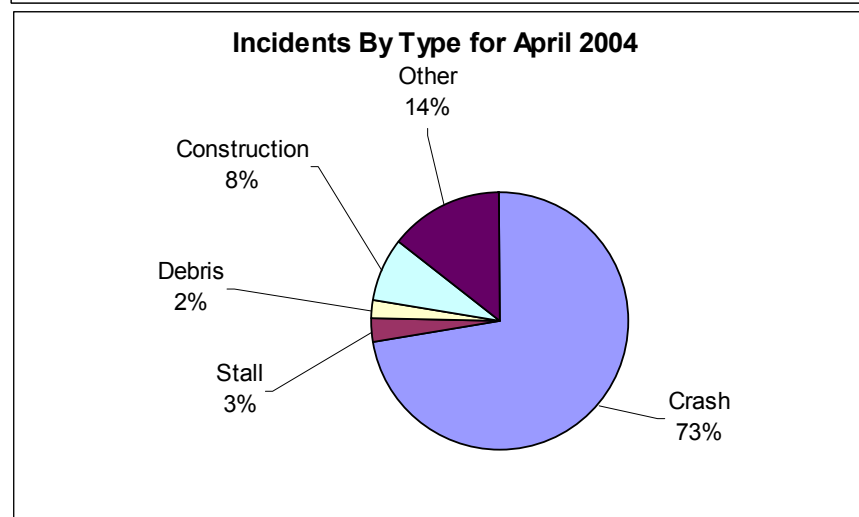
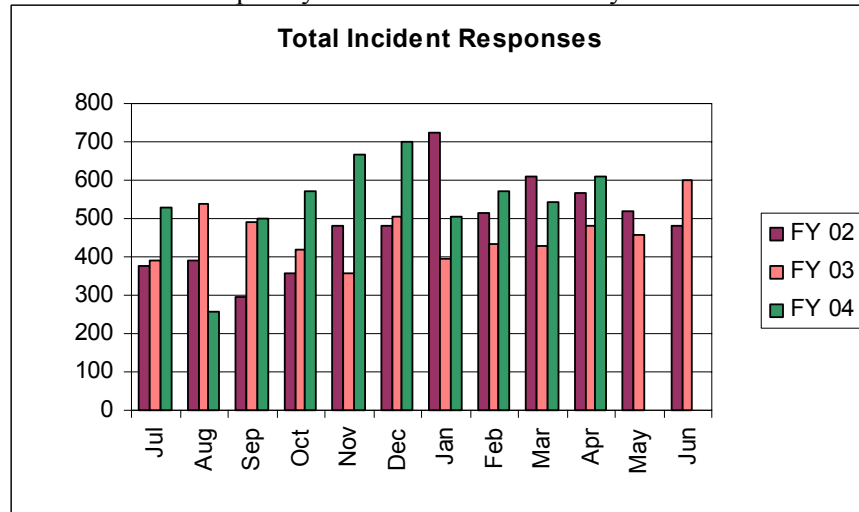
Acronyms

ATMS Advanced Traffic Management System
CCTV Closed Circuit Television
DPS Department of Public Safety
HAR Highway Advisory Radio
RWIS Road-Weather Information System

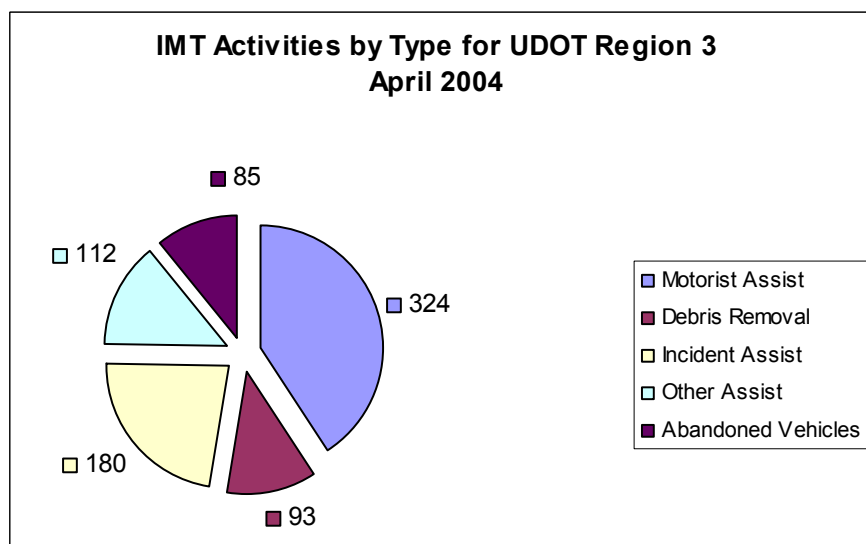
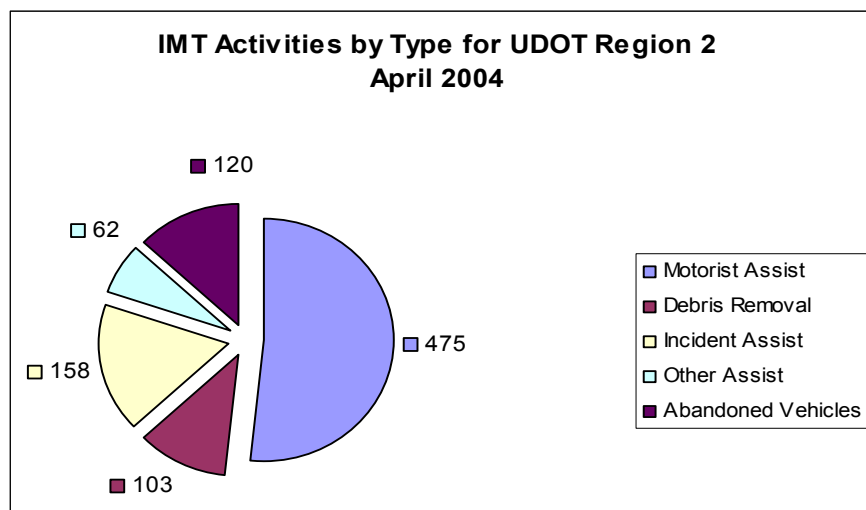
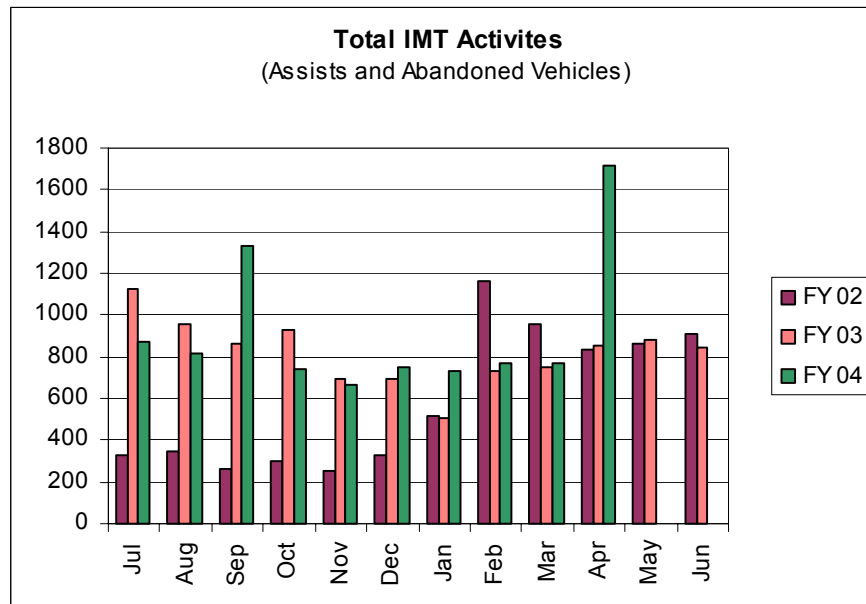
TMS Traffic Monitoring Station (count station)
TOC Traffic Operations Center
TTI Travel Time Index
VMS Variable Message Sign
i2TMS Integrated Interagency Traffic Management System

Safety

An incident response occurs each time an incident is recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Crashes are separated into three subcategories: property damage, personal injury, and fatal. Each time an incident is created, information is sent to the 511 system, the website, and to the public through email alerts. An incident remains active until it has been completely cleared from the roadway.



Incident Management Team (IMT) Activities



Freeway Traffic Level of Service

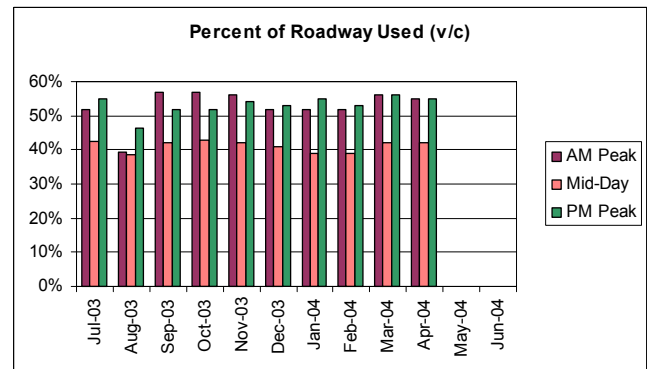
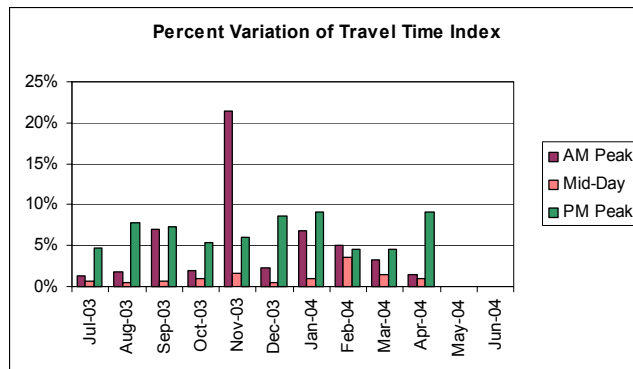
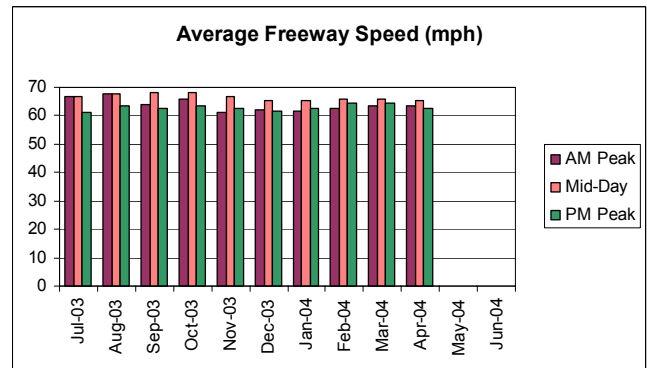
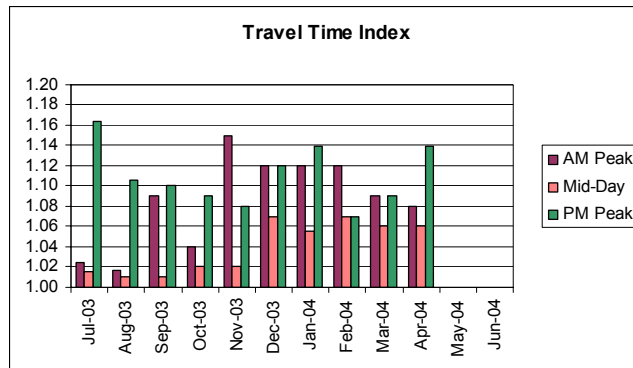
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of 1.0 represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time Index changes from day-to-day.

Average Freeway Speed: The freeway speed is weighted by volume.

Percent of Roadway Used: The percent of roadway used is the ratio of the volume on the segment to its capacity. This is otherwise known as the volume to capacity ratio, or (v/c).



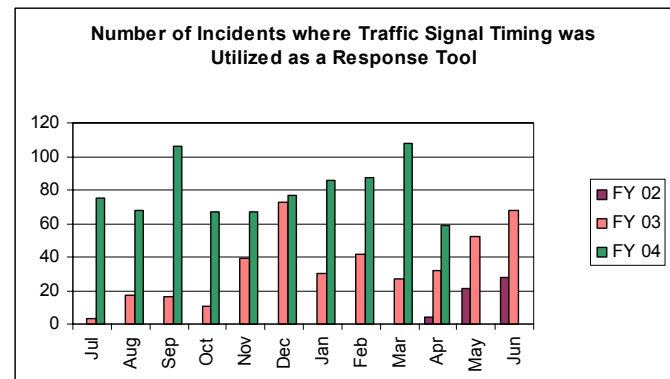
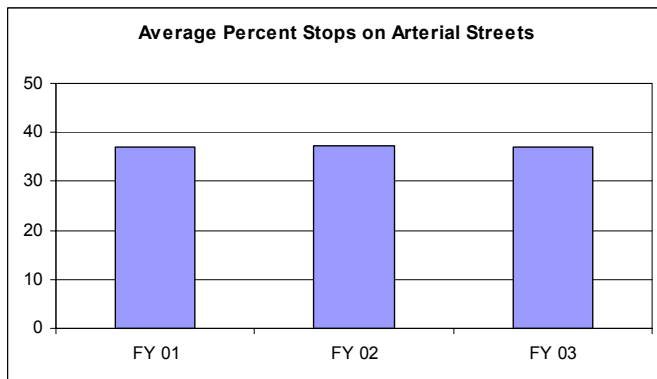
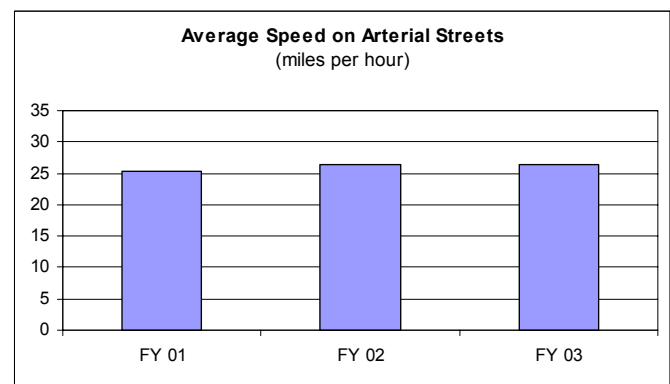
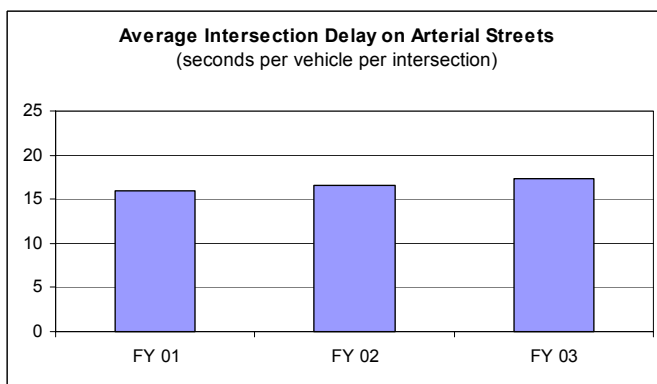
The 5 links with the highest average Travel Time Index for the month are:

Segment	Period	Avg Of TTI
I-15 NB from 600 N to I-215 W	PM Peak	1.54
I-15 NB from 600 S to 600 N	PM Peak	1.31
SR-201 WB from I-215 W to 7000 W	AM Peak	1.16
I-215 S WB from Knudsen's Corner to I-15	AM Peak	1.15
SR-201 EB from 7000 W to I-215 W	AM Peak	1.12

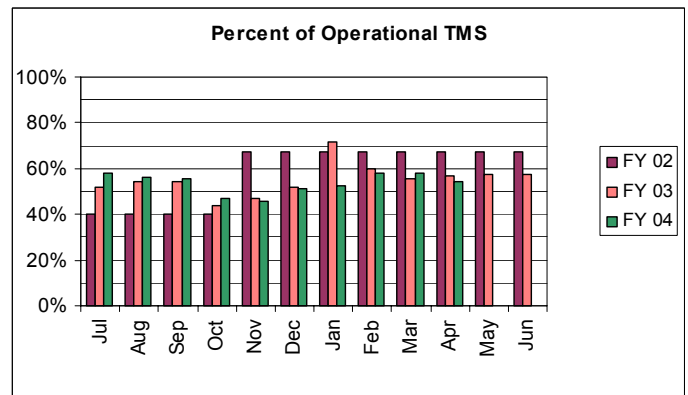
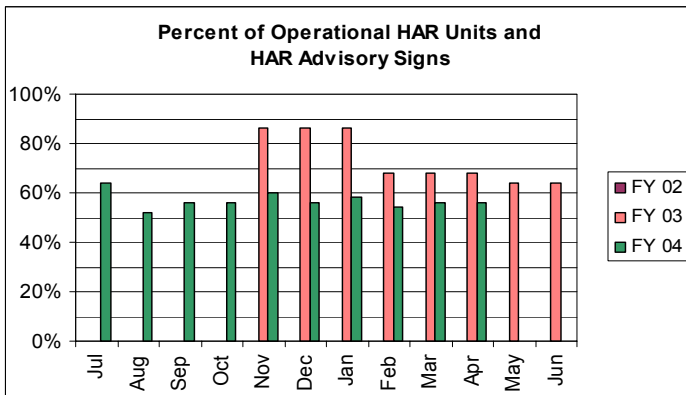
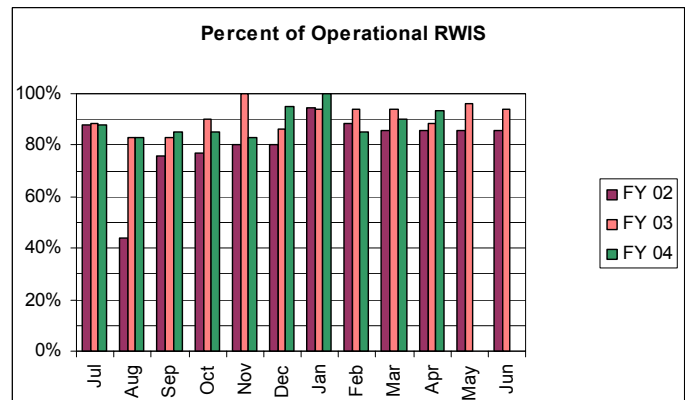
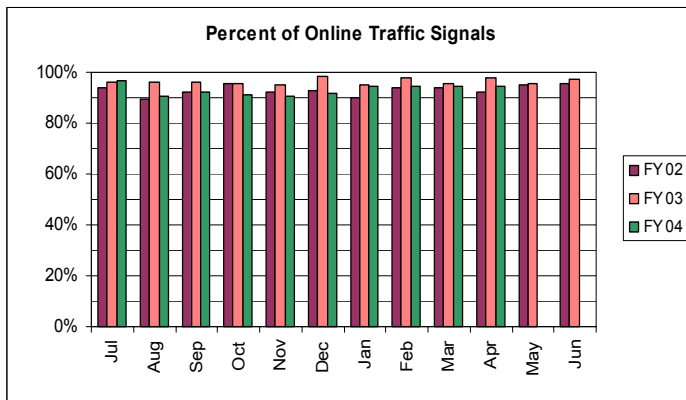
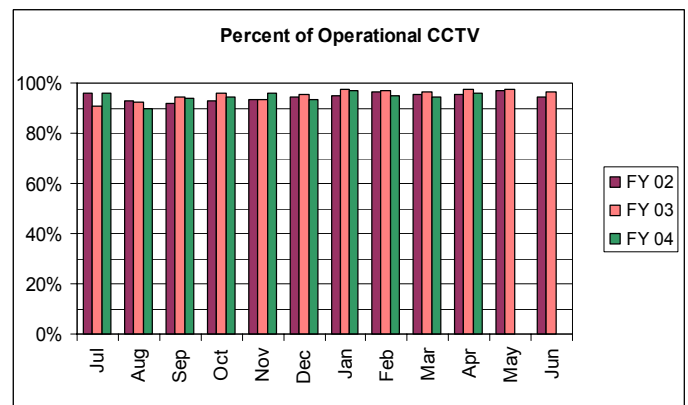
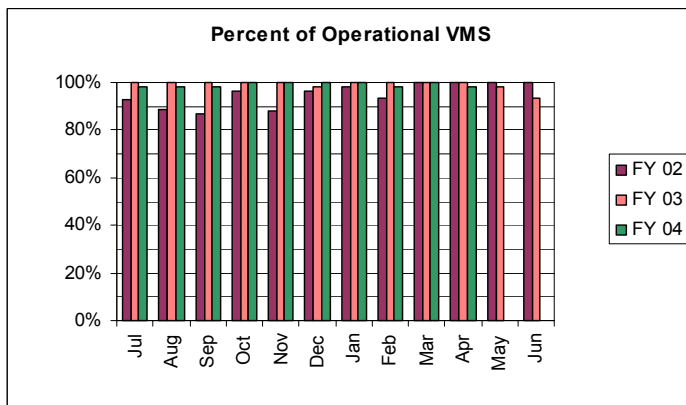
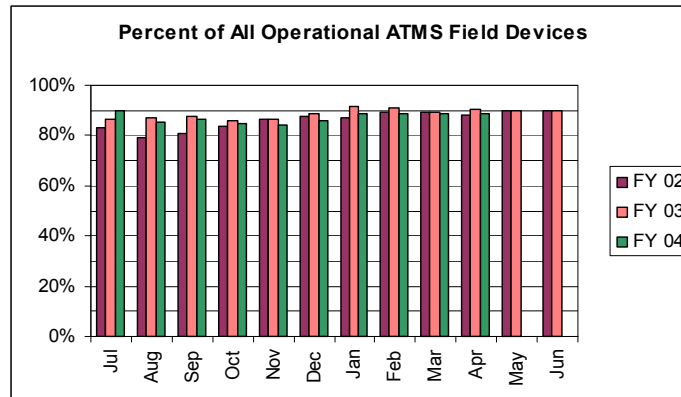
Surface Street Traffic Level of Service

The surface street traffic statistics are generated through a series of Travel Time measurements. These are conducted using a special equipped vehicle which measures the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Traffic Systems Section gathers these measurements from Regions 1, 2, 3, and 4 twice each year. The chart in the lower right hand corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.

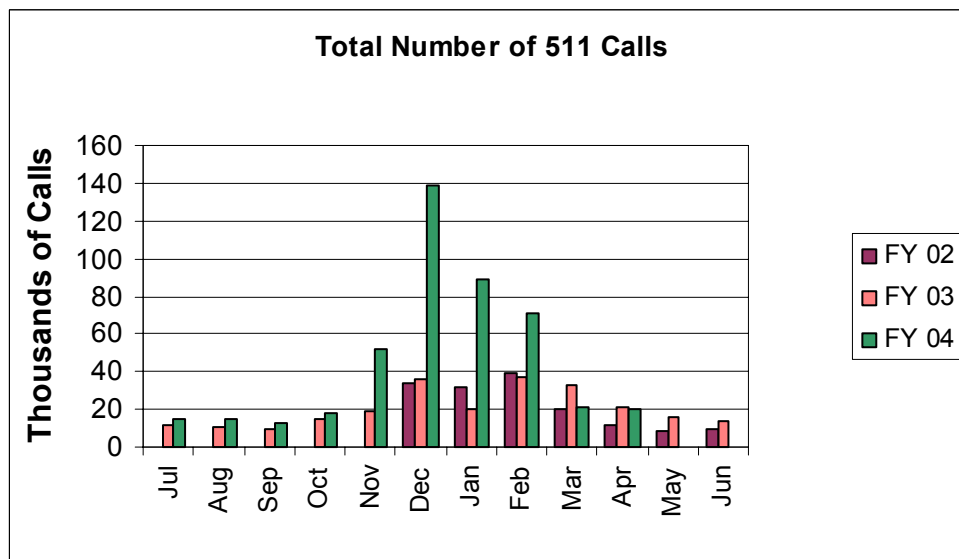
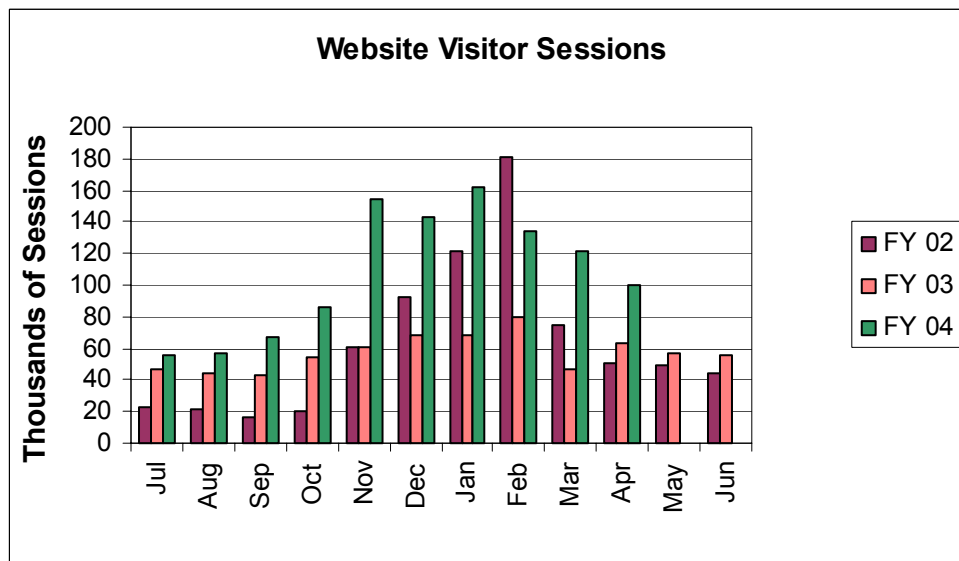
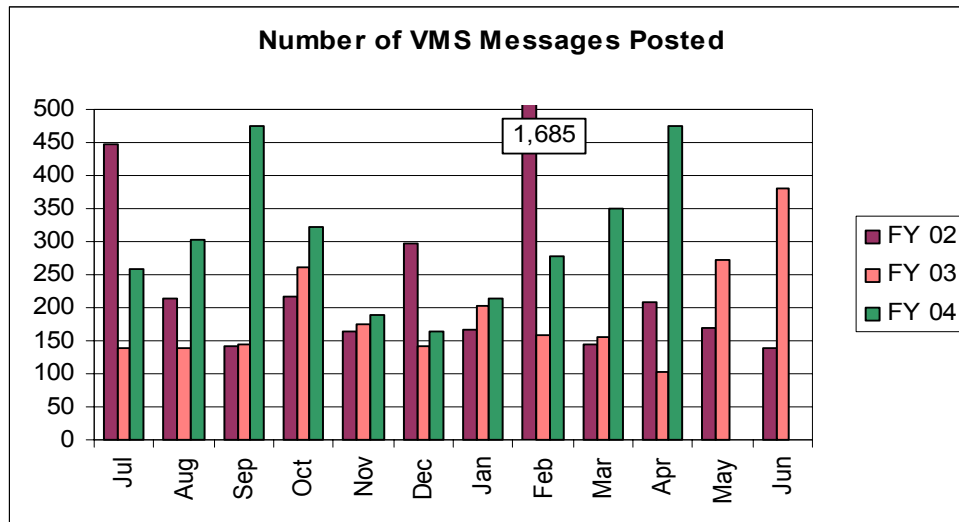
The charts below represent the annual summary.



Maintenance

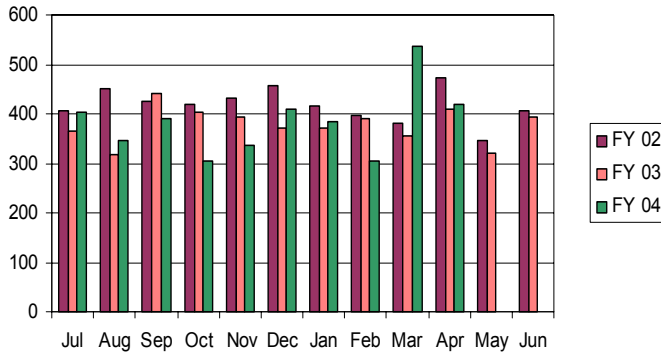


Traveler Information

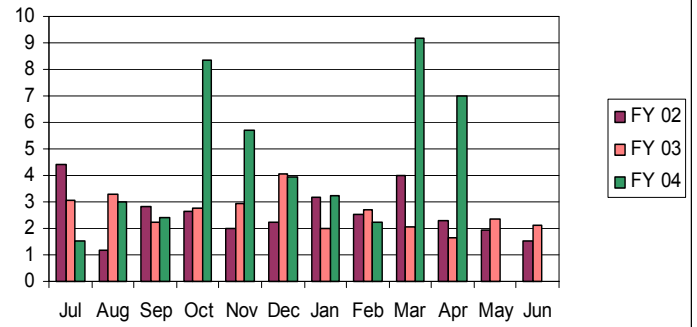


Customer Service

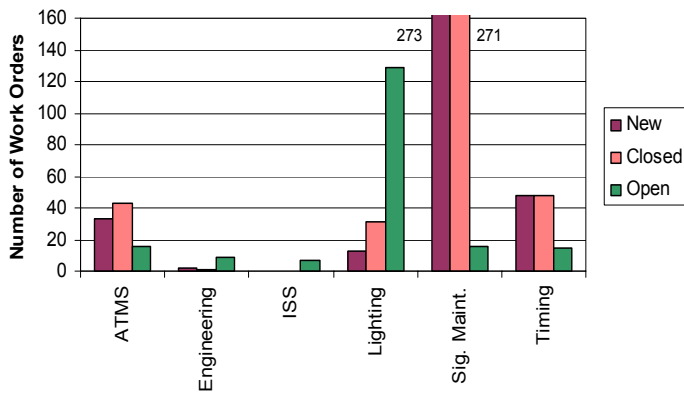
Number of New Work Orders



Overall Average Work Order Turnaround Days



Work Order Status by Group



Work Order Status for All Groups for FY04

